

DOCUMENT RESUME

ED 048 013

SE 010 980

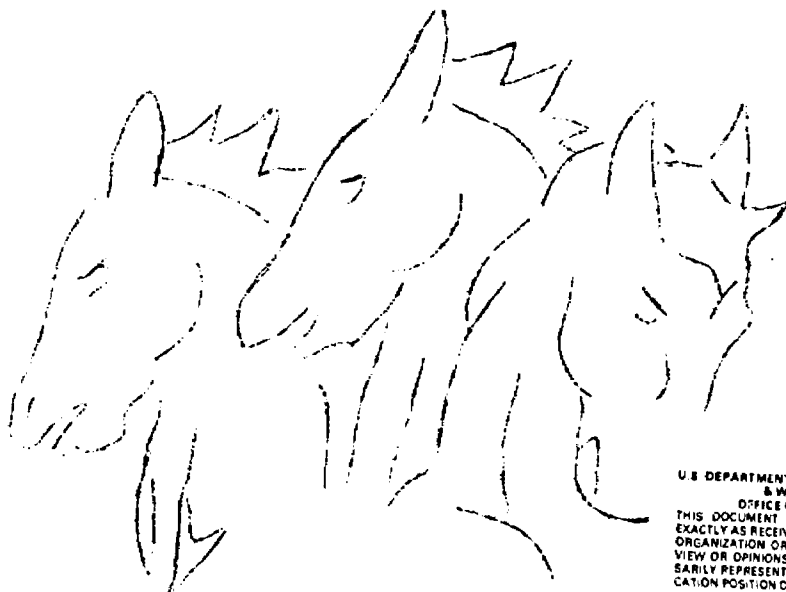
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TITLE Teaching Units on Smoking, Grades 4, 5, 6.  
INSTITUTION Horseheads Central School District 1, N.Y.  
PUB DATE 70  
NOTE 16p.  
EDRS PRICE MF-\$0.65 HC Not Available from EDRS.  
DESCRIPTORS \*Health Education, Instruction, \*Intermediate  
Grades, Resource Materials, \*Resource Units,  
\*Smoking, Teaching Guides, Tobacco, Units of Study  
(Subject Fields)

ABSTRACT

Smoking, tobacco, and health are presented in this resource unit for grades four, five, and six. One of three units on smoking, drugs, and alcohol, this guide for teachers outlines information about the physiological and socio-economic effects of smoking, effects of smoking on physical performance, man's use of tobacco and tobacco production, tobacco and health stressing the parallel relationship of increased tobacco consumption with substantial increase in cardio-respiratory diseases and the casual relationship between lung cancer and smoking, and points to consider in decisions regarding smoking. Supplemental information and a bibliography of pamphlets, filmstrips, films, and resource agencies are also included. [Not available in hardcopy due to marginal legibility of original document.] (BL)

ED048013

HORSEHEADS CENTRAL SCHOOL DISTRICT



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Grades 4, 5, 6.

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Smoking  
Grades 4 - 5 - 6  
Teaching Units

- I. Your Decision About Smoking
- II. Man's Use of Tobacco
- III. Tobacco and Health
- IV. Deciding About Smoking

Helen M. Murphy, S.N.T.  
Broad St. School

### Concepts

Pupils should:

1. understand the development of tobacco production and use so as to better appreciate its significance in America today..
2. realize that the increased consumption of tobacco in the U.S. is paralleled by a substantial increase in Cardio-respiratory diseases.
3. know that modern research has demonstrated a casual relationship between lung cancer and smoking.
4. realize that smoking is detrimental to one's health and growth, and undermines the individual's ability to maximally participate in physical activities.
5. be able to arrive at a sound and sensible decision about tobacco use, based on scientific evidence.

## I. Your Decision About Smoking

### A. Important Considerations

#### 1. Effects of Smoking on One's Health

##### a. Content of smoke

##### b. Physiological effects

A young person's decision about smoking is one of several important decisions in his life and should be based on a firm foundation of scientific knowledge.

Your decision about smoking will greatly influence your health as an adult.

Smoke from tobacco is made up of gases and particles.

When a person inhales smoke these gases and particles enter his breathing passages and are deposited on the surfaces.

Some are absorbed in the blood and remain to produce damaging effects on the lining membrane.

Lung tissue and bronchial tubes in particular are effected.

Normally the surface of the breathing mechanisms are kept clean by the movement of little "hair-like" structures called cilia.

This means that dust particles are "swept away" by their movement. The cigarette (tobacco) smoke slows down or even stops this action. This means the "tar" will stay in contact with the surfaces over a longer period of time, resulting in irritation or infection. It is thought that this condition may eventually lead to cancer.

## 2. Effects of Smoking on Physical Performance

Men and women who began the smoking habit several years ago did not have the knowledge of the harmful effects of smoking that we have today.

### a. Effects on Heart and Circulation

1. Increases in pulse rate
2. Contraction of small blood vessels
3. Lowering of skin temperature
4. Increase in blood pressure

### b. Other Effects

1. Chronic cough (heavy smoker)
2. Unattractive brown stains
3. Lung cancer
4. Shorter life
5. Emphysema (possible)

### c. Effects on Beginning Smokers

1. Dizziness
2. Faintness
3. Rapid Pulse
4. Clammy skin
5. Nausea
6. Vomiting
7. Diarrhea
8. Irritability
9. Possible impaired vision or hearing.

### 3. Expense of Smoking

Compute annual cost of smoking one pack per day.

One Insurance Co. has declared a 5% premium reduction for non-smokers.

Other companies are considering this move.

### 4. Smoking Habit May Last Your Entire Lifetime

Your decision to smoke or not should be based on intelligent interpretation of facts and not on peer pressure or a personal desire to appear "grown-up."

Discuss why smoking is prohibited in certain areas.

### 5. Safety Implications of Smoking

Two leading causes of fires in the home are careless smoking habits and children playing with matches.

Tobacco amblyopia (dimness of vision) is common among smokers. Pipe and cigar smokers especially complain of difficulty during night driving.

Loss of wildlife and forests are caused by carelessly discarded cigarettes, cigars and pipe ash.

### 6. Attitudes of Parents and Other Family Members

A young person who is dependent on his parents for food, shelter and other life necessities should consider his parents attitudes before starting to smoke.

### 7. Uniqueness of Individual

Each individual is unique, therefore each arrives at his decision about smoking in a different way.

Approximately 2/3 of our adult women do not smoke.

More than 1/3 of our adult men do not smoke.

## B. Making the Right Decisions

The disadvantages of smoking far outweigh any advantages one might imagine.

List advantages and disadvantages separately.

Compare.

1. A Mature Decision Based on a Clear Understanding of Tobacco and its Use.

Decision is ultimately a personal one.

An objective evaluation of smoking should result in the conclusion that smoking is undesirable.

2. Maturity - Not Measured by Decision to Smoke

One does not have to smoke to act grown-up.

Ability to make an individual, personal decision not to smoke in spite of opinions and practices of friends and acquaintances is an evidence of maturity.

Encourage class discussion to determine those qualities which seem to characterize the mature person.

## II Man's Use of Tobacco

Man has used tobacco for several centuries.

### A. Early use of tobacco (1492-1600)

1. American Indians

Europeans learned about tobacco when they explored the new world.

2. Canadian Indians

Records from Cartier's exploration indicated that Canadian Indians cultivated tobacco and smoked it in pipes.

3. Natives of Mexico and Central America.

There is some historical evidence suggesting that the Aztecs and Mayans developed the first cigarette.

4. Europe (middle 1500's)

Early users of tobacco were not aware of the consequences of smoking.



## B. The Middle Period (1600-1800)

### 1. English Colonies in America

The Colonists found that tobacco was a popular trade item. It became a major industry before 1700.

## C. Recent History (1800-present time)

### 1. Expansion of the Industry.

The introduction of cigarette making machines was an important factor in the expansion of the tobacco industry.

### 2. Increased Use of Cigars and Cigarettes

### 3. Era of Tobacco Reform (1895-1921)

Efforts to control the use of tobacco were evident in the latter 19th Century.

a. Many States banned the sale of cigarettes.

b. Legal measures had no lasting influence.

As with the prohibition of alcoholic beverages, public sentiment overwhelmed the attempts to ban cigarette sales.

### 4. The Modern Tobacco Era

Tobacco production and distribution has become a very important segment of our national economy. Today, Americans are spending \$8,000,000,000 annually on tobacco products.

a. The United States is a World Leader in Tobacco.

1. Production

2. Exportation

3. Consumption

During the 1960's the annual exports from the United States averaged between 20-25 billion cigarettes.

b. Certain of our States base a large portion of their economy on the Tobacco Industry.

The Federal Government's tax on cigarettes (8¢ per pack) produces nearly

111 million, 70 million dollars per year. The States realized an additional

1 billion, 2 million dollars from their tobacco taxes.

New York City levies an additional 4¢ tax (per pack) and this measure produced 41 million dollars in 1964.

### III Tobacco and Health

#### A. Causes for Concern in Recent Years

##### 1. Increase in heart disease.

Incidence of heart disease, lung cancer and other respiratory diseases has increased since 1900.

Researchers cited in the Surgeon General's Report indicate that incidence of coronary heart disease is 2-3 times higher in smokers than non-smokers.

##### 2. More Deaths Due to Lung Cancer

The incidence of lung cancer is increasing more rapidly than any other form of cancer. Its increase parallels the increased consumption of cigarettes in the United States.

Lung cancer - leading cause of death among men.

Lung cancer has increased 10 times over what it was 30 years ago.

##### 3. Shortened Life Expectancy of Smokers

#### B. Increased Tobacco Use in the United States

##### 1. Per capita Cigarette Consumption on increase since 1900.

Trends of increased cigarette smoking among women suggests that in the future the incidence of lung cancer among women will approach that of men.

Research completed in 1966 has shown that increased lung cancer and coronary heart disease rates have been demonstrated in female smokers.

It is estimated that a male smoker who has smoked 20 years loses on the average about 5 years life expectancy.

2. There is a corresponding increase in incidence of lung cancer and other cardio-respiratory illnesses.

3. Consumption of Pipe Tobacco and Cigars has decreased.

Per capita consumption of cigarettes (for persons 15 years and older) has increased approximately 30 times since 1900, but there is a marked decline of cigars and pipe tobacco.

4. Teen-age smokers have increased.

The reason for this gives evidence that they are unaware of the hazards of smoking.

C. Surgeon General's Report (\$1.25 per copy)

Until recent years our knowledge of tobacco's effects on the body has been shrouded in myth, superstition, and lack of knowledge.

The Surgeon General's Report has linked cigarette smoking to lung cancer.

1. Report was made in 1964

Its conclusions have been accepted by the Medical and other Professional Groups.

2. Research Findings

a. Cigar smoking is a cause of lung cancer. Lung cancer rates have increased 10 times in the past 30 years. It now kills over 41,000 Americans annually. The number is expected to increase. Lung cancer rate is approximately 20 times lower among non-smokers.

It is estimated that 75% of lung cancer is caused by smoking.

b. The Incidence of Heart Disease is Higher Among Smokers than Non-Smokers. (Get American Cancer Society exhibit "a wheelbarrow of cigarettes and a jar of tar").

c. Other Respiratory Diseases Are More Common Among Smokers.

3. People who have never smoked are least apt to die from lung cancer.

The surest way to protect oneself from premature death from lung cancer is to refrain from smoking.

#### D. Tobacco and Youth

##### 1. Effects on the Respiratory System

Use of tobacco leads to breathlessness in the smoker.

Shortness of breath is due to congestion of the breathing passages by smoke.

- a. Interferes with normal breathing.

Smoking is likely to reduce a person's ability to participate effectively in physical activities.

(Posters - American Cancer Society - Athletes "I Don't Smoke")

- b. Athletes are instructed not to smoke.

Some professional athletes who do smoke generally have superior ability which would probably improve if they didn't smoke.

- c. Tendency Toward More Frequent Colds of Longer Duration.

Retardation of ciliary action may aggravate cold symptoms.

Tobacco smoke decreases the motility work-effectiveness of the cilia (hair-like structures on the walls of the respiratory system) hence an increased tendency to accumulate impurities that would normally be "moved out" by the cilia.

Tobacco smoke interferes with the proper functioning of our protective mucus lining in the nose and throat.

## 2. Effects on the Digestive System

- a. Smoking tends to reduce one's appetite.

During the growing years smoking interferes with normal growth because it has a depressing effect on the appetite.

Any substance which acts as an appetite depressant will influence the intake of nutrients essential for normal growth and development.

## 3. Effects on Heart

- a. Smoking increases the heart rate.

It is not uncommon after smoking a cigarette for an individual's heart rate to increase 20 beats per minute. This could last as long as 20 minutes after the smoking has ceased.

This increase results from a stimulation of sympathetic ganglia. Both systolic and diastolic blood pressure are increased. Flow of blood in the peripheral blood vessels is decreased, causing the temperature to drop slightly in the fingers and toes.

- 1. Disadvantages to the athlete.
- 2. Affects Efficiency of Body Muscles.

## 4. Growth and Development

- a. Decreases the desire for food.
- b. Deprives the body of fresh air necessary for growth of tissues.

Smoking causes an increased secretion of digestive fluids and a slowing down of the digestive process.

Results in decreased appetite.

Smoking deadens the sense of taste.

Use set of posters from Roswell Park Memorial Institute.

Smoking Increases Heart Rate (pulse) and contracts blood vessels.

The heart must do added work to increase blood flow by increasing rate and pressure.

#### IV Deciding About Smoking

A wise decision is based upon factual information and mature judgment:.

Alleged Rewards of Smoking:

Improvement of self image

Feeling of independence

Release of tension due to insecurity- frustration- restlessness-  
oral gratification and dulling sensitivity.

Risks of smoking:

Physiological habituation

Possible acquisition of coronary heart disease, cancer, emphysema,  
bronchitis and other diseases.

Immediate effects:

Tobacco breath

Stained fingers

Cough due to dry mouth and throat

Increases possibility of fire and incidental damage to clothing and  
furnishings.

Pamphlets:

American Cancer Society

1. Answering the Most-Often-Asked Questions About Cigarette Smoking.
2. I'll Choose The High Road
3. Shall I Smoke?
4. To Smoke or not To Smoke
5. Where There's Smoke
6. Your Health and Cigarettes

New York State Department of Health

Freckle-faced Jimmy

### Additional Materials

Dr. Ronald Vincent Ass't Dir.  
Roswell Park Memorial Institute  
666 Elm Street, Buffalo, New York 14203

### Filmstrips:

1. Life in Jamestown: Curriculum Materials Corp., 1319 Vine St., Phila., 7, Pa. 19107
2. Nature's Filter: Amer. Temp. Soc., 6840 Eastern Ave., N.W., Wash. D.C. 20012
3. What About Smoking (c 33 1/3 record) Family Films Inc., 5823 Santa Monica Blvd., Hollywood 38, Calif. 90028
4. I'll Choose The High Road: American Cancer Society, N.Y.S. Division  
40 Franklin St. Rochester, New York 14604

### Films:

1. Alcohol and Tobacco: What They Do to Our Bodies, Coronet Films  
16 Min. B & W
2. Is Smoking Worth It? American Cancer Society 19 Min. B & W
3. Tobacco Valley - Shade Tob. Co., River St. Windsor, Conn, 06095 27 Min.
4. Backbreaking Leaf: Syr. Film Lit. 30 Min.
5. Cigarama: Sterling Movies, 375 Park Avenue, N.Y.C. 10022 12 Min. B & W
6. Point of View: New York State T.B.C. & Resp. Dis. Assoc., 105 East 22nd Street, N.Y.C. 10010
7. The Huffless Puffless Dragon (same as above)
8. Breaking the Habit: American Cancer Society 6 Min. Color
9. Smoking and Lung Cancer: Film Lit. N.Y.S. Dept. of Health 29 Min. B & W
10. Smoking and You ( same as above) 11 Min. Color.
11. Smoking Anyone: (same as above) 25 Min. Color
12. Tobacco and the Human Body: (same as above) 15 Min. B & W
13. Who Me: ( same as above) 14 Min. Color.

### Supplemental Information

Not clear how tobacco was introduced in Europe.

Used mainly as a medicine until 1600.

This "medical discovery" first hailed in Portugal where tobacco was recommended in poultices, unguents and as cathartics and dentifrices.

Even in latter 17th Century used to ward off plague and to cure cancer.

Smoking habit encouraged in England when Sir Francis Drake returned in 1586 c quantities of tobacco captured in W. Indies. He returned with leaves, seeds and clay pipes.

Pipes used widely in England and other parts of Europe ever since.

Sir Walter Raleigh first to take up smoking habit and make it respectable in Elizabethan court circles..

Snuff-powdered form of tobacco which is chewed, rubbed on gums and teeth and inhaled through nose. Introduced in Europe from America during 16th Century. Popular until end of 1800's.

Major mode of tobacco consumption during the Colonial period was pipe smoking.

The Jamestown cultivations were developed by John Rolfe who grew tobacco from seed sent him from either So. America or W. Indies.

England believed that tobacco was harmful and prevented the Colonists from growing food crops. The Colonists however, maintained that tobacco was their major staple and a medium of exchange.

During the Revolutionary Period the cigar was introduced to the Colonies by General Israel Putnam.

Cigarette smoking was relatively rare in the United States until the close of the Civil War.

The chief method of tobacco consumption during the first half of the 19th Century was chewing. It became a prideful departure from the accepted European pattern of consumption.



Tobacco chewing became a distinctly American custom. It had originally been a habit of seamen and common workers.

In all American Wars 3 factors appear to have increased the extent of tobacco use:

1. removal of family restrictions.
2. indulgence in tobacco as an escape from the rigors of military life.
3. The phenomena of "imitated behavior" when people are grouped together.

Increased use of cigarettes led to the imposition of a cigarette tax in 1864. During this period 14 states banned the sale of tobacco largely through efforts of temperance groups.

By 1930 all prohibitory regulations had been repealed. This led to the doubling of cigarette sales by 1930.

The majority of tobacco reformers believed that tobacco use was physically and mentally harmful and that it undermined one's moral life.